

## ACTIVE DIESEL EMISSION CONTROL SYSTEMS



# Overview of the RYPOS HDPF and HDPF/C self cleaning diesel exhaust filter.



The RYPOS HDPF and HDPF/C is an active Diesel particulate filter system that is characterized by high efficiency and very low electric power consumption for regeneration. The regeneration is independent of engine exhaust temperature or fuel sulfur content. The system consists of a filter housing, electrical control circuit, and filter cartridges.

## **Electronic Control System:**

The operation of the RYPOS HDPF and HDPF/C is controlled by a microprocessor. The controller monitors the HDPF and HDPF/C and periodically, as required, an electric current is passed through a filter element, which then acts as a heating element. A dedicated power source provides the required electrical current to heat the filter element to the temperature required to burn soot. The regeneration strategy is designed to keep the back pressure below a preset level.

#### **Particulate Filter Medium:**

The filter medium is sintered metal fiber material which is electrically conductive with high soot holding capacity and is capable of capturing the very fine particles in the exhaust system. The proprietary filter material is designed specifically to act as both a filter and heating medium.

### **Characteristics of Sintered Metal Fibers**

Electro conductive

High porosity

Low back pressure

Withstands high temperatures

Heats up fast (low thermal mass)

High filter efficiency

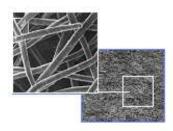
## Filter Cartridge:

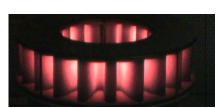
Sintered metal fiber filter elements

The non-woven matrix can tolerate thermal expansion and contraction

Thermal and electrical insulation is used for high energy efficiency

Modular design is scalable to accommodate a wide range of engine specifications





## **RYPOS HDPF System** Advantages:

**Technology** 

- O High performance -Traps up to 90% of soot
- Low back pressure (adjustable to meet engine specifications)
- Energy efficient requires less than 1%, on average, of engine output to operate
- Fully automatic with no operator intervention - no downtime
- O Rugged long life
- O Size can be adapted from 50 kW to 2000 kW Diesel generators
- Can be used with or without Diesel oxidation catalyst
- O Diesel sulfur has no adverse effect on the operation and/or durability of the system and system components

RYPOS HDPF Specifications

RYPOS Inc. ~ 150 Hopping Brook Road ~ Holliston, MA 01746 U.S.A ~ Phone: (508) 429-4552 ~ Fax: (508) 429-4553

1 of 1 7/31/2009 11:16 AM